

Dec. (193⁵) Department.

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Me **SERIES.**

G.O. No. 615

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DATED 17-1-1988

[Despatch Abstract.]

1. 1940-1941 - Superficial and Construction - Prep. of
of Superficial from Cason up to - Construction of the
2. 1942-1943 - Construction.

Industries

DEPARTMENT.



Received
21 MARCH 1935

192

Registered

192

Subject.

Cashew apple - preparation of sugar syrup from -
demonstration regarding - at Mangalore.

ENCLOSURES.

No. One journal.

Spare copies

No.768-A/34.

Station M a d r a s Dated the 16th March 1935.

From (Name) V. Ramakrishna, Esq., M.A., I.C.S.,

(Designation) Director of Industries.

To The Secretary to the Government of Madras,

DEVELOPMENT Department.

Sir,

PP 24-22 / 1590 22.8.30 (J)

Reference: Correspondence resting with my letter
No.74-A/32 dated 5th July 1932.

At the instance of the District Advancement Association,
South Kanara, a number of experiments were carried out with
cashew apples supplied by the Association, at the Indian
Institute of Science, Bangalore, under the direction of Profes-
sor V. Subramanyam, Professor of Bio-Chemistry of the Institute.
In the preliminary stages of the experiment they obtained a
pleasant flavoured golden syrup out of the fruit containing
only the sugars and entirely free from the fruit acids, and
they were desirous of continuing the experiments on the prepa-
ration of syrups containing the fruit acid as well. Further

PP 14 2 of
97 1590 22.8.30 (J)

consignments of cashew apples were, therefore, sent to the Institute by the Secretary, District Advancement Association and fresh experiments were carried out by Mr. M. Sreenivasan, B.A., M.Sc., a Madras Government Scholar working in the Bio-Chemistry Department of the Institute. He has drawn up a report on the work done which has been published in the journal of the institute, copy enclosed for perusal and return. The main part of the report is largely technical and is devoted to a study of the nature and composition of the fruit juice, the various methods tried to concentrate it and the processes that were tried to decolorise and deodorise the syrup. Although the manufacture of a colourless or at any rate a highly coloured syrup is technically possible it cannot be adopted by the peasant. The object therefore should be to remove the tannins and other impurities associated with the fruit and to concentrate the sugars and other edible constituents to a condition in which it will keep. Mr. Srinivasan's work was directed to this end and he has succeeded in standardising the conditions for the preparation of the syrup as a cottage industry. The method consists in crushing the fruit as soon as possible after plucking and removal of the nut preferably in wooden presses, and filtering through a coarse cloth. The milky fluid which passes through is treated in the cold with milk of lime up to a stage which Mr. Srinivasan has carefully standardised. The impurities which come down are removed and a clear juice obtained by passing it again through cloth. The next operation is one of concentration by boiling which process has also been carefully described by Mr. Srinivasan. The point at which to stop the boiling has also been indicated. The syrup thus obtained will keep indefinitely if it is not exposed to moist air. The best method of storing the syrup will be to transfer it while yet fairly warm into earthenware jars the exterior of which has been

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PP. 924 93
Journal (Put up)

paⁿted with some material that will not allow the syrup to ooze through or moisture to get in. A thick coat of good clay may be found useful. The utilisation of the syrup thus obtained in various arts and manufactures is a subject for further enquiry. The syrup can be used as such for the manufacture of industrial alcohol, but further treatment, ^{particularly} decolorisation, would be needed to make it suitable for use in medicine and the preparation of certain types ^{of} confectionery. Mr. Srinivadaⁿ has also indicated the possibilities in this direction.

B

2. ^{Prof. V.} ~~Mr.~~ Subramaniam points out that no operation however carefully described on paper would be so illustrative as a practical demonstration, and he has undertaken to send a demonstrator to any place suggested by this department to demonstrate the various processes involved. The District Advancement Association, the sponsors of the investigation on this industry, are anxious to have the demonstrations conducted at Mangalore and are prepared to meet the cost of such demonstration, other than travelling allowance or other expenses of the demonstrator. The authorities of the Institute of Science agreed to stage the demonstrations at Mangalore, either at the end of March or in the beginning of April. As they are themselves interested in the success of the demonstrations they do not seek any remuneration for conducting them, nor do they propose to charge for such equipment as the demonstrator may take with him from Bangalore. They however stipulate that the Department should arrange to meet the travelling allowance single II Class railway fare each way and halting expenses at Rs.2/- a day for the demonstrator. The demonstration is not likely to extend over a longer period than ten days. The II Class Travelling Allowance from Bangalore to Mangalore is Rs.27-8-0. The Travelling allowance and the daily allowance would, therefore amount to about Rs.75/-. I consider that in view of the importance of the utilisation of the abundant supply of cashe

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apple on the West Coast, we should follow up the work that has been done on the subject by the Institute, and I recommend that Government may be pleased to sanction an expenditure of Rs. 15/- for the purpose. I request that Government will be pleased to pass early orders.



for Director of Industries.



VRN.18.3.

CS/P

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Res. Dept.

C. NO. 1193-1135. Industries - Experiments and
Demonstration - Preparation
of Sugar Syrup from Cashew
Apple - Demonstration at
Mangalore.

1-4-35

[Letter from the R.D. NO. 768.A/34
16.3.35]

TO AS.

Please see the Dir's letter
at pages 1-4 CFI. The expenditure
of Rs 75/- to meet the travelling
allowance and daily allowance
of the Demonstration may be
sanctioned. As the experiment

H. m. p. 10 & E10

1590 Rev (J)
22.4.30.

I. P 25 of 90. 763.500 (N)
24.6.33

in the Indian Institute of
Science, Bangalore, were carried
out with the ^{knowledge} approval of the
Govt. the case need not ^{perhaps} go to
Finance. ~~Under Govt.~~

A draft order is submitted
below for approval

Rev
28.3.35

Finance may be as per

expenditure is incurred

RR
28.3.35 S. / H21/2

11661 KOT



Int. Sec.

CS/NO 1193-1135

30.3.35

Fin (Exp)

The expenditure involved in the proposal is Rs 75 ^{and non-recurring.} It represents the travelling and daily allowances of a demonstrator of the Indian Institute of Science who will demonstrate at Mangalore the preparation of sugar syrup from cashew apple.

A on 1-1-36

As the amount involved is trivial
and ~~small~~ as the expenditure does not pertain to the demonstration proper, it does not appear necessary to treat it as a "New Service".

② The cost of demonstration (equipment etc) will be met by the Indian Institute of Science.

~~2. The draft order may be accepted.~~

(Exa. t. proceeds to for care of the. Kind are not necessary)

For funds, please see the concluding portion of the draft order.

The District Advancement

For
8/4/35

Association appears to have done the preliminary work in direct correspondence with the Indian Institute who has entrusted it to a Madras Govt. Scholar. Now that expenditure has to be incurred, the Association appears to have addressed the Director of Industries.

It is stated that a demonstrator from the Institute

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PP 4+5 9

90-1396 100 (J)
... 30

B. n p. 3 CF

Institute will be sent. Apparently the "demonstrator" will be the Govt Scholar referred to. If so, it is not clear why he should be given second class fare and a daily allowance of Rs. 2/- If the demonstration is to be made, Development may be requested to ascertain whether it will be conducted by the Govt Scholar, and if so, to state what would be the ^{an official} ~~cost~~ ^{for} if he makes ~~of~~ ^{an official} journey during the tenure of the scholarship.

~~2. Apart from this, Development may also be requested to ascertain whether the season for Cashew nuts ^{will} ~~is~~ ^{be} over by the time the demonstrator is able to take up the work. ~~on~~ ~~apart from the distribution of cashew nuts at~~ ~~two other places to be named~~ ~~by the~~~~

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2 Apart from these points, it is not clear what object is likely to be served by conducting

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Conducting a demonstration,
when it is not known what
use can be made of the Syrup. L - p. 3 of
The expenditure involved in
the demonstration may be trivial,
but does not appear to be
justified

CS
10/4/35-

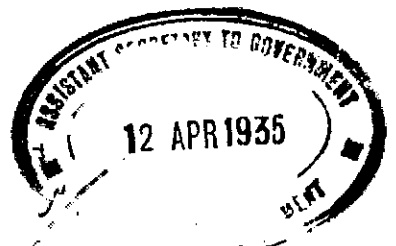
1

Expenditure having already been
incurred in the research work it seems
worth while putting up the little money
required by the Institute for demon-
strating on the W. Coast the results obtained.
It may be that the demonstration will
enable the utilisation as a cottage
industry at little or no expense of
surplus cashew fruits which would
otherwise be waste by extracting
from them a syrup which would
have some, if no very great, value.

Draft order accepted in Fin.

10/4/35-

Dev



Fin. A.O. 11661 Exp

11-4-35

D. 1453 II

12-4-35-

5.9

Rev. Dept

To W.S.

For orders whether
the draft order may now
issue

12.14.35 $\frac{12}{15.4}$

16/4/35 S

Att 16.11

17/4

16. Date

C.F. 16.

DRAFT FOR APPROVAL.

Rev. Dept

Date. Initials.

SUBJECT :—

When received for fair copying ..	
When copied ..	~~17/5~~
When examined ..	~~17/5~~
When signed ..	~~17/5~~
When despatched.	

Industries - Experiments
 and Demonstration -
 Preparation of Sugar
 Syrup from Cashew Apple.
 Demonstration at Mangalore.
 Expenditure - Sanctioned.
 22 4-1030 (T)

READ AGAIN 90. 1590 Rev, dated 22-8-1930 (J)

19

READ ALSO:—

No. 1193-11 From the 77.9, No. 768-1/34, dated 16. 3-19 35.

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Order Ms.
~~Resolution~~ ~~Reut.~~ No. 615, dated 17 4, 1985.

Amp 3. CF

x Bm p. 3. CF

x p 85 of the Journal
(Put up)

The Govt sanction an expenditure of Rs 75/- (Rupees seventy five only) to meet the travelling allowance and the daily allowance of the Demonstrator ^{Mr. ...} deputed by the Indian Institute of Science, Bangalore, to demonstrate ^{at Mangalore} the preparation of Sugar Syrup from cashew apple at Mangalore.

^{No} The expenditure should be ^{incurred} ~~not~~ from

before specific reapp. information is something if the extension cannot be met from the app. information for ~~the extension~~ under 356. Ind. - Ind. Trust fund

~~the savings in the~~
industries bridge

WR $\frac{60}{26.3 \cdot 35 \cdot 253}$

RR
2/ 335

#13013

A-direction - 3 summer and known

Py 320 for 1/2

TO The H.O. with a Journal
" " A G. Hnd. the ^{Returned separately} Fin. Rep.

del.
m. 12/1/75

note

to H.O.

~~the draft may be~~

~~sent to finance for acceptance~~

WR
25.1.75